ELSEVIER

Journal of Molecular Catalysis A: Chemical 112 (1996) 493–495

JOURNAL OF MOLECULAR CATALYSIS A: CHEMICAL

Contents Volume 112

Vol. 112, No. 1

Articles

Chemical and Metal Complex Catalysis

Hydrolysis catalyzed with a resin containing histidine groups [M991]
W.-H. Hung, C.-C. Hu and C.-Y. Liu (Taipei, Taiwan) 1
Homogeneous catalytic synthesis of formic acid (salts) by hydrogenation of CO_2 with H_2 in the presence of ruthenium species [M1144]
J.Z. Zhang, Z. Li, H. Wang and C.Y. Wang (Shanxi, PR China) 9
Phenol hydroxylation by iron(II)phenanthroline: The reaction mechanism [M1197]
C. Liu, X. Ye, R. Zhan and Y. Wu (Changchun, PR China) 15
Influence of an aromatic carboxylic acid as cocatalyst in the palladium-catalysed reductive carbonylation of aromatic nitro compounds [M1180]
P. Wehman, L. Borst, P.C.J. Kamer and P.W.N.M. Van Leeuwen (Amsterdam, The Netherlands) 23
Photoinduced *rac/meso* interconversions of bridged bis(indenyl) zirconium dichlorides [M1199]
W. Kaminsky, A.-M. Schauwienold and F. Freidanck (Hamburg, Germany) 37
Highly selective vapor phase propene hydroformylation catalyzed by Rh/B and Rh–Co/B systems on silica [M1202]
L. Storaro, R. Ganzerla, M. Lenarda (Venice, Italy), R. Zanoni and G. Righini (Roma, Italy) 43
Electrocatalytic CO_2 reduction by cobalt octabutoxyphthalocyanine coated on graphite electrode [M1201]
T. Abe (Saitama, Japan), F. Taguchi (Ibaraki, Japan), T. Yoshida, S. Tokita (Saitama, Japan), G. Schnurpfeil, D. Wöhrle (Bremen, Germany) and M. Kaneko (Ibaraki, Japan) 55

Molecular Aspects of Heterogeneous Catalysis

Cluster quantum-chemical MINDO/3 study of the nature of hydroxyl groups on a calcium oxide surface [M1091]
N.U. Zhanpeisov (Kyoto, Japan; Novosibirsk, Russia), H. Nakatsuji and M. Hada (Kyoto, Japan) 63
IR studies on the preservation of $RhCo_3$ clusters on the surface of SiO_2 [M1195]
L. Huang (Dalian, China) 69
Amorphous alloy catalysis IX. Isomerization and hydrogenation of allyl alcohol over an amorphous copper–zirconium alloy [M1178]
T. Martinek, Á. Molnár, T. Katona, M. Bartók (Szeged, Hungary) and A. Lovas (Budapest, Hungary) 85
Enantioselective heterogeneous catalysis. 2. Examination of the formation of the individual (R) and (S) lactates in the cinchonidine modified platinum hydrogenation of pyruvate [M1187]
R.L. Augustine and S.K. Tanielyan (South Orange, NJ, USA) 93
Preparation and characterization of polymer-protected Pt/Co bimetallic colloids and their catalytic properties in the selective hydrogenation of cinnamaldehyde [M1182]
W. Yu, Y. Wang, H. Liu and W. Zheng (Beijing, China) 105
On the role of oxygen in the reaction of NO reduction by NH_3 over monolayer V_2O_5–TiO_2 catalyst [M1155]
L.G. Pinaeva, A.P. Suknev, A.A. Budneva, E.A. Paukshtis and B.S. Bal'zhinimaev (Novosibirsk, Russia) 115
Influence of sulfur dioxide adsorption on the surface properties of metal oxides [M1181]
M. Ziolek, J. Kujawa (Poznan, Poland), O. Saur, A. Aboulayt and J.C. Lavalley (Caen, France) 125
Determination of the acid strength of solid catalysts in water by means of a kinetic tracer [M1183]
C. Moreau, R. Durand, P. Geneste and S. Mseddi (Montpellier, France) 133
Role of methoxide species in *iso*butene formation from CO and H_2 over oxide catalystsMethoxide species in *iso*butene formation [M1177]
K.-i. Maruya, A. Takasawa, T. Haraoka, K. Domen (Yokohama, Japan) and T. Onishi (Chiba, Japan) 143

Vol. 112, No. 2

In Memoriam 153

Letters

Chemical and Metal Complex Catalysis

Asymmetric hydrogenation of α-keto ester with diamine-complexed metal [M1107]
C. Pinel, N. Gendreau-Diaz, A. Bréhéret and M. Lemaire (Villeurbanne, France) L157
Catalytic activity of lanthanoide(III) ions for dehydration of D-glucose to 5-(hydroxymethyl)furfural [M1244]
H. Ishida (Kumamoto, Japan) and K.-i. Seri (Fukuoka, Japan) L163

Articles

Chemical and Metal Complex Catalysis

Charge response study of the toluene–[V_2O_5] chemisorption clusters: Two reactant approach [M1089]
R.F. Nalewajski and J. Korchowiec (Cracow, Poland) 167
A novel Rh–PCy_3–CO–HCOOH catalytic system for the regioselective conversion of alkenes to aldehydes [M1030]
B. El Ali, G. Vasapollo and H. Alper (Ottawa, Ontario, Canada) 195
Reactivity of bis(alkene)tetracarbonyl complexes of tungsten: evidence for alkene to π-allyl hydride rearrangement [M1083]
T. Szymańska-Buzar, M. Jaroszewski, M. Wilgocki and J.J. Ziółkowski (Wrocław, Poland) 203
Palladium-catalyzed arylation of secondary allylic alcohols in the presence of copper(II)triflate and triphenylphosphine: Selective synthesis of β-aryl-α,β-unsaturated ketones [M1109]
T. Satoh, M. Miura and M. Nomura (Osaka, Japan) 211
Heterogenized catalysts for olefin hydroformylation containing cobalt and palladium–cobalt complexes anchored on phosphinated SiO_2: a 13C solid-state NMR study [M1022]
B.L. Moroz, I.L. Moudrakovski and V.A. Likholobov (Novosibirsk, Russia) 217
Ethoxylation of fatty alcohols promoted by an aluminum alkoxide sulphate catalyst [M1093]
M. Di Serio, P. Iengo (Napoli, Italy), R. Gobetto (Torino, Italy), S. Bruni (Milano, Italy) and E. Santacesaria (Napoli, Italy) . 235
EPR and ^{1}H NMR spectroscopic characterization of the ferric species formed in the iron picolinate/(pyridine/acetic acid)/HOOH catalytic system for the direct ketonization of methylenic carbons [M1112]
A.P. Sobolev, D.E. Babushkin, A.A. Shubin and E.P. Talsi (Novosibirsk, Russia) 253

Molecular Aspects of Heterogeneous Catalysis

A new titanium–silica catalyst for the epoxidation of alkenes [M1090]
C. Cativiela, J.M. Fraile, J.I. García and J.A. Mayoral (Zaragoza, Spain) 259
Oxidation of S(IV) to S(VI) under Fenton, photo-Fenton and γ-FeOOH photocatalized conditions [M1003]
A. Ansari, J. Peral, X. Domènech (Bellaterra, Spain), R. Rodríguez-Clemente (Barcelona, Spain) and J. Casado (Milano, Italy) 269
The Catalytic autoxidation of sulfite by supported water-soluble iron porphyrins [M1087]
S.-M. Chen (Taipei, Taiwan, ROC) 277
Calorimetric study on interaction of dioxygen with alumina supported palladium [M1088]
Y.-S. Ho, C.-B. Wang and C.-T. Yeh (Hsinchu, Taiwan, ROC) 287
Platinum–oxide species formed by oxidation of platinum crystallites supported on alumina [M1086]
C.-P. Hwang and C.-T. Yeh (Hsinchu, Taiwan, ROC) 295
An example of the valorization of terpenes: The selective isomerization of 3-carene to 2-carene in the presence of silica supported nickel catalysts modified by tetrabutyl tin [M1085]
P. Lesage, J.-P. Candy (Villeurbanne, France), C. Hirigoyen (Castets-des-Landes, France), F. Humblot, M. Leconte and J.-M. Basset (Villeurbanne, France) 303
Unprecedented effects of solvent and temperature of preparation on hydrosilylating properties of alumina-supported platinum catalyst [M1111]
Y. Fort, A. Silvestri (Vandœuvre les Nancy, France) and H. Graindorge (Vert le Petit, France) 311

Vol. 112, No. 3

Articles

Chemical and Metal Complex Catalysis

Palladium(II)-catalyzed exchange and isomerization reactions. XVI. The kinetics and stereochemistry of the oxidation and isomerization of hexafluoro allylic alcohols in aqueous solution catalyzed by $PdCl_3(pyridine)^-$ [M1186]
J.W. Francis and P.M. Henry (Chicago, IL, USA) 317
Studies of the rhodium iodide catalysed hydrocarboxylation of ethene [M1143]
M. Kilner and N.J. Winter (Durham, UK) 327
Oxidation of propenoidic phenols catalysed by *N,N'*-ethylenebis(salicylideneiminato)cobalt(II) [Cosalen]: reactivity and spectroscopic studies [M1070]
E. Bolzacchini, L.B. Chiavetto, C. Canevali, F. Morazzoni, M. Orlandi and B. Rindone (Milan, Italy) 347
Oxidative coupling of 2,6-dimethylphenol to polyphenylene ether catalyzed by a dinuclear Cu(II)dihydroxo-diiodo complex of 2,2'-dipyridylamine [M1196]
A. Camus, M.S. Garozzo, N. Marsich (Trieste, Italy) and M. Mari (Milan, Italy) 353
Functionalized phosphine substituted cobalt carbonyls. Synthesis, characterization and catalytic activity in the hydroformylation of olefins [M1094]
L. Rosi, A. Bini, P. Frediani, M. Bianchi and A. Salvini (Florence, Italy) 367
A new alkyl peroxovanadium catalyst for selective oxidation of nitriles to α-oxo nitriles: A functional mimic of Cyt-P.450 [M1106]
B.M. Choudary and P.N. Reddy (Hyderabad, India) 385
Phosphorus pentoxide promotion of iridium-catalysed rearrangement of methyl formate in the absence of initial CO pressure [M1184]
M. Cheong, S.-h. Bae and K.B. Lee (Seoul, South Korea) 389
A novel heterogeneous molecular catalyst for the Meerwein–Ponndorf–Verley and Oppenauer reactions [M1193]
P. Leyrit, C. McGill, F. Quignard and A. Choplin (Villeurbanne, France) 395

Aspects of Heterogeneous Catalysis

Hydrogen spillover in bifunctional catalysis [M1139]
F. Roessner (Oldenburg, Germany) and U. Roland (Louvain-la-Neuve, Belgium) 401
Analysis by size exclusion chromatography (SEC) of catalytic materials: The fractal properties and the pore size distribution of pumice [M1140]
D. Duca and G. Deganello (Palermo, Italy) 413
XPS study of polyaniline supported dodecatungstosilicic acid catalyst [M1141]
R. Dziembaj, A. Małecka, Z. Piwowarska and A. Bielański (Kraków, Poland) 423
Selective dehydrogenation of dipentene (*R*-(+)-limonene) into paracymene on silica supported palladium assisted by α-olefins as hydrogen acceptor [M1179]
P. Lesage, J.P. Candy (Villeurbanne, France), C. Hirigoyen (Castets-des-Landes, France), F. Humblot and J.M. Basset (Villeurbanne, France) 431
Influence of catalyst type, solvent, acid and base on the selectivity and rate in the catalytic debenzylation of 4-chloro-*N,N*-dibenzyl aniline with Pd/C and H_2 [M1110]
M. Studer and H.-U. Blaser (Basel, Switzerland) 437
Catalytic reduction of nitric oxide on copper. Part I [M1203]
H. Lu (Stockholm, Sweden), C.-M. Pradier (Paris, France) and A.S. Flodström (Stockholm, Sweden) 447
Catalytic reduction of nitric oxide over copper. Part II: Influence of sulfur dioxide [M1204]
H. Lu (Stockholm, Sweden), C.-M. Pradier (Paris, France) and A.S. Flodström (Stockholm, Sweden) 459
Use of phosphines as versatile molecular probes for studying the coordination states of molybdenum ions in Mo/SiO_2 catalysts by EPR [M1138]
Z. Sojka, A. Adamski (Cracow, Poland) and M. Che (Paris, France) 469

Author Index 483

Subject Index 484

Contents Volume 112 493